Application/Control No. Applicant(s)/Patent under Index of Claims Reexamination 10/648,168 ALBRECHT ET AL. Examiner Art Unit Gollamudi S. Kishore, Ph.D 1615 (Through numeral) Cancelled Rejected Non-Elected **Appeal** N Α 0 Objected Restricted Interference **Allowed** 

| But     Control     But     Entrol   | Cla      | aim   | 10   |                 |          | D                       | ate   |                    |             |          | Cla  | im       |                      |                         |              | Date            | )        |          |         | ] | Cla  | aim |          |           |          | D              | ate      | 1        |   |   |          |
|---|----------|-------|--|-----------------|----------|-------------------------|---|--------------------|-------------|----------|--|----------|----------------------|-------------------------|--------------|-----------------|----------|----------|---------|---|------|-----|----------|-----------|----------|----------------|----------|----------|---|---|----------|
| E       |          | - F   |  | П               |          | П                       |   |                    | $\Box$      |          |  |          |                      |                         |              | П               |          |          |         |   |      | _   |          |           |          |                |          | - 1      |   |   | Ì        |
| 1     √     51     101     102     102     102     103     4     4     4     4     54     103     103     4     4     4     4     54     104     104     4     55     7     105     55     106     56     66     106     56     106     60     107     107     107     107     107     107     108     58     108     108     109 <td< td=""><td>la l</td><td>يِّ ا</td><td>ı</td><td>   </td><td></td><td>- 1</td><td></td><td></td><td>1 1</td><td></td><td>ॿ</td><td>ا يَجَ</td><td></td><td></td><td></td><td>1 1</td><td>ı</td><td></td><td></td><td></td><td>na l</td><td>١Ξ</td><td></td><td></td><td></td><td></td><td></td><td>ļ</td><td></td><td></td><td>ļ</td></td<>  | la l     | يِّ ا | ı  |                 |          | - 1                     |   |                    | 1 1         |          | ॿ  | ا يَجَ   |                      |                         |              | 1 1             | ı        |          |         |   | na l | ١Ξ  |          |           |          |                |          | ļ        |   |   | ļ        |
| 1     √     51     101     102     102     102     103     4     4     4     4     54     103     103     4     4     4     4     54     104     104     4     55     7     105     55     106     56     66     106     56     106     60     107     107     107     107     107     107     108     58     108     108     109 <td< td=""><td>ίĒ</td><td>  Ĕ,</td><td>1/1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>這</td><td>漢</td><td></td><td></td><td></td><td>1</td><td>- 1</td><td>Ì</td><td></td><td></td><td>ίĒ</td><td>뚩</td><td></td><td></td><td></td><td></td><td></td><td></td><td>l</td><td>ı</td><td>ı</td></td<>  | ίĒ       | Ĕ,    | 1/1  |                 |          |                         |   |                    |             |          | 這  | 漢        |                      |                         |              | 1               | - 1      | Ì        |         |   | ίĒ   | 뚩   |          |           |          |                |          |          | l   | ı   | ı        |
| 2   |          | Ľ     | L  |                 | $\perp$  | $\perp$                 |   | $\perp$            | Ш           |          |  |          |                      | $\perp$                 |              | Ш               | _        | $\perp$  |         |   |      |     |          | _         |          |                | _        | _        | _   | $\bot$  | _        |
| 3   |          |       | -  |                 | $\perp$  | $\perp$                 |   |                    | $\perp$     |          |  |          |                      | 1                       | 1            | Ш               | _        |          |         |   |      | 101 | _        | _         | _        | _              | _        | _        | 4   | $\bot$  | _        |
| 4   |          |       | <del></del>                                      | Ш               | _        | 4                       | _   | 4                  | 1_1         |          |  |          | _                    | 1                       | _            |                 | _        | $\perp$  | $\bot$  |   |      |     | _        | _         | _        | _              | _        | _        | 4   | $\dashv$  | _        |
| 55  |          |       | 1  | Ш               | _        | _                       |   | 4                  | $\bot \bot$ | :        |  | 53       |                      | 4                       | 4            | $\sqcup$        | _        |          |         |   |      | 103 | _        | 4         | _        |                | -        |          | $\dashv$  | -   | 4        |
| 6   | _        |       | - <i>-</i> /                                     | Н               | _        | -                       |   | 4-                 | 11          | -        |  | 54       | _                    | 4-                      | +-           | $\vdash$        | -        | -        | 4       |   |      |     |          | $\dashv$  |          |                | -+       | -        | +   | +   | ᅱ        |
| 7   |          |       | 1/   | $\vdash$        | $\dashv$ | +                       |   |                    | 1-1         |          |  | 55       | -                    | +                       | ╀            |                 | -        | -        | -       |   |      |     | -        | +         |          | -              | -        |          | -   | +   | ᅱ        |
| 8   |          |       | H  | <b>├</b> ─┤     | +        | +                       | -   | -                  | +           |          |  | 57       |                      | +                       | +            | $\vdash$        | -+       |          |         |   |      | 100 | $\dashv$ | $\dashv$  | -        | -              |          | -        | +   | +   | $\dashv$ |
| 9   100   100   110   111   121   121   121   121   121   121   121   121   122   122   122   122   122   122   122   123   124   124   124   124   124   125   125   126   126   126   126   127   127   127   128   129   130   131 |          |       | ₩  | ┝╾┥             | +        | +                       | $\dashv$  | ╫                  | ╁┼          |          |  |          |                      | +                       | +            | $\vdash$        |          |          | +-      | ł |      |     | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$       | $\dashv$ |          | $\dashv$  | +   | ᅱ        |
| 10  | -        |       | $^{+}$   | $\vdash$        | +        | +                       | +   | +                  | +           |          |  | 50       | +                    | +                       | +            | $\vdash$        | ┪        | -        | +       | ł |      |     | -        | +         | $\dashv$ | $\dashv$       | 一        | $\dashv$ | $\dashv$  | 十   | ᅱ        |
| 11  |          |       | ₩  | ┝╾┤             | $\dashv$ | +                       | $\dashv$  | +                  | +           | $\dashv$ |  | 60       | $\dashv$             | +                       | ╁╌           | $\vdash$        | ┪        | -        | +       |   |      |     | $\dashv$ | $\dashv$  | ╛        | -              | _        | $\dashv$ | $\dashv$  | +   | ᅥ        |
| 12  |          |       | H  | $\vdash \vdash$ | $\dashv$ | 十                       | $\dashv$  | +                  | +           | $\dashv$ |  |          | $\dashv$             | +                       | +            | $\vdash$        | -        | +        | +       |   |      |     | _        | $\dashv$  | ᅥ        | 一十             | 寸        | $\dashv$ | 十   | +   | ᅥ        |
| 13  |          |       | 1  | $\vdash$        | $\dashv$ | $\top$                  | $\dashv$  | +                  |             |          |  | 62       | 十                    | +                       | T            | Н               | 一        | +        | 1-      |   |      |     | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$       | $\dashv$ | 7        | 十   | $\top$  | ヿ        |
| 14  |          |       | ΙT   | Н               | $\dashv$ | $\dashv$                | $\top$  | 1                  | $\Box$      | -        |  | 63       | $\dashv$             | $\top$                  | $\top$       | $\vdash$        | 7        | $\top$   | $\top$  | 1 |      | 113 | $\dashv$ | 1         | ╗        | $\dashv$       | $\dashv$ | 7        | $\dashv$  | $\top$  | ヿ        |
| 15  |          |       | П  | П               |          | $\top$                  |   | $\top$             | T           |          |  |          |                      | $\top$                  | 1            | $\Box$          | 7        | $\neg$   | T       |   |      | 114 | 一        | $\neg$    |          |                | $\neg$   |          | ヿ   | 十   | ヿ        |
| 16  |          |       |  |                 | 丁        | $\top$                  |   | 1                  |             |          |  | 65       |                      | 丁                       | Τ            | П               |          |          | I       | ] |      | 115 |          | $\Box$    |          |                | 丁        | ╛        | 丁   | $\Box$  | ┚        |
| 17  |          | 16    | V  |                 |          | ightharpoons            |   |                    |             |          |  | 66       |                      | $oldsymbol{\mathbb{I}}$ | $oxed{\Box}$ |                 |          |          |         |   |      | 116 |          |           |          |                |          |          | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $oldsymbol{\perp}$  |          |
| 19  |          |       |  |                 |          |                         |   |                    |             |          |  | 67       |                      |                         |              |                 | $\Box$   |          |         |   |      | 117 |          |           |          |                |          |          | $\Box$  |   |          |
| 120   |          |       |  |                 |          |                         |   |                    |             |          |  | 68       |                      |                         |              |                 |          |          |         |   |      | 118 |          |           |          |                | $\perp$  |          | $\Box$  |   |          |
| 21     71     72     121     122     122     123     123     123     124     124     124     124     124     124     124     124     125     125     125     126     126     126     126     127     127     127     127     127     127     127     128     128     128     128     128     128     129     130     130     130     130     130     130     130     130     133     134     135     135     135     135     135     135     135     135     135     135     136     136     136     137     137     137     137     137     137     137     137  |          |       |  | Ш               |          |                         |   |                    |             |          |  |          |                      | $\perp$                 | $\perp$      | Ш               |          |          |         |   |      | 119 |          | $\perp$   | _        |                |          | $\Box$   | _   | $\perp$   | $\Box$   |
| 122   |          | 20    | <u> </u>   | Ц               | _        | _                       |   |                    |             |          |  | 70       |                      | 1                       | $\perp$      | Ш               | _        |          |         |   |      | 120 | $\perp$  | $\dashv$  | _        | _              | _        | _        | $\dashv$  | _   | ╝        |
| 123   |          |       | L  | Ш               | 4        | _                       |   |                    | 1           | _        |  |          | _                    | 4                       | ╄            | Ш               | 4        |          |         |   |      | 121 | _        | _         | _        | _              | 4        | 4        | 4   | 4   | 4        |
| 24     74     124     125     125     125     125     126     126     126     126     126     126     126     127     127     127     127     127     128     128     128     129     129     129     129     130     130     130     130     130     131     131     131     131     131     132     132     132     132     133     133     133     133     133     133     134     134     134     134     134     134     134     134     134     134     134     134     134     134     135     135     135     135     136     136     137     137     137     137     137     137     137     138     138     138     138     138     138     138     138     139     139     140     140     141     141     141     142     142     143     143     144     144     144     144     144   |          |       | <u> </u>   | Ш               | 4        | 4                       |   | 1                  | 1           | _        |  | 72       | _                    | 4                       | 1_           | $\sqcup$        | _        |          |         |   |      | 122 | $\dashv$ | $\dashv$  | _        | _              | -        | _        | 4   | 4   | $\dashv$ |
| 25     75     125     126     126     126     126     126     127     127     127     127     127     127     127     128     128     128     128     129     129     129     129     130     130     130     130     130     131     131     131     131     131     132     132     132     132     132     132     133     133     133     133     133     133     134     134     134     134     134     134     134     134     134     134     134     134     135     135     135     135     135     135     136     137     137     137     137     137     137     137     137     137     137     137     139     139     139     140     140     141     141     141     141     141     142     142     142     142     142     142     143     143     144     144     144     144   |          |       | <u> </u>   | $\sqcup$        | $\dashv$ | 4                       | _   | 1                  | $\sqcup$    |          |  | 73       |                      | $\perp$                 | 4-           | $\vdash$        | 4        | - -      | _       |   |      | 123 | $\dashv$ | $\dashv$  | 4        |                |          | $\dashv$ | $\dashv$  | +   | 긕        |
| 26     76     126     127     127     127     127     127     128     128     128     128     129     129     129     129     130     130     130     131     131     131     131     131     131     132     132     132     133     133     133     133     133     133     133     133     133     133     134     134     134     134     134     134     134     134     134     135     135     135     136     136     136     136     136     137     137     137     138     138     138     138     138     138     139     140     140     140     140     140     141     141     141     141     142     142     142     143     143     143     144     144     144     144     144     145     145     146     146     146     146     146     147     147     147     147     149   |          | 24    | ⊢  | Н               | 4        | -                       |   | +                  |             |          |  |          | +                    | +                       | +            | $\vdash$        |          | +        | -       |   |      |     | -        | $\dashv$  | -        | $\dashv$       | $\dashv$ | -        | -   | $\dashv$  | $\dashv$ |
| 27     28     77     127     128     128     128     128     129     129     129     129     130     130     130     130     130     131     131     131     131     132     132     132     132     133     133     133     133     133     133     133     133     133     133     133     134     134     134     135     135     135     135     135     135     136     136     136     136     137     137     138     138     138     138     138     139     140     141     141     141     141     141     141     141     141     141     141     141     141     141     142     142     143     144  |          |       | ⊢  | Н               | +        | +                       |   |                    | -           |          |  |          |                      | +                       | ╄            | $\vdash$        |          | +        | +-      |   |      | 125 |          | $\dashv$  | $\dashv$ | $\dashv$       |          | $\dashv$ | +   | +   | $\dashv$ |
| 28     78     128       29     79     129       30     80     130       31     81     131       32     82     132       33     83     133       34     84     134       35     85     135       36     86     136       37     87     137       38     88     138       39     89     139       40     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     96     146       47     97     147       48     98     148       49     99     149   | <u> </u> | 26    |  | $\vdash$        | +        | +                       |   |                    | -           | $\dashv$ |  | 70       |                      | +                       | ┿            | $\vdash$        | $\dashv$ | +        | ┿       | 1 |      | 120 | $\dashv$ | $\dashv$  | -        | -+             |          | $\dashv$ | $\dashv$  | +   | $\dashv$ |
| 29   79   129     30   80   130     31   81   131     32   82   132     33   83   133     34   84   134     35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   | $\vdash$ |       | ├  |                 | +        | +                       | $\dashv$  | +-                 | +           | $\dashv$ |  |          | -                    | +                       | ╁            | $\vdash$        | $\dashv$ |          | +-      |   |      |     | $\dashv$ | $\dashv$  |          | -              | $\dashv$ |          | +   | +   | ᅱ        |
| 30  | _        |       | ┢  | Н               | $\dashv$ | +                       |   | +-                 | $\vdash$    |          |  | 70       | -                    | ╁                       | ╁            | $\vdash$        | ᆉ        | +        | ╅       | ł |      | 120 | -        | $\dashv$  | $\dashv$ | $\dashv$       | -        |          | $\dashv$  | +   | ᅱ        |
| 31   81   131   132   132   132   133   133   133   133   133   133   133   134   134   134   134   134   134   134   135   135   135   135   135   135   135   136   136   136   136   137   137   137   137   137   137   138   138   138   138   139   139   140   140   140   140   141   141   141   141   141   141   142   142   142   142   143   144   145   145   145   145   145   146   147   147   147   148   148   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   |          |       | ╁╌   | $\vdash$        | $\dashv$ | +                       | -   | +-                 | ╁           | -        |  |          | $\dashv$             | ╁                       | ╁            | $\vdash$        | ┰        |          | +-      | ł |      | 130 | $\dashv$ | $\dashv$  | -        | 7              | -        | 一        | _   | +   | ㅓ        |
| 32   82   132   133     34   84   134   134     35   85   135   135     36   86   136   137     38   88   138   138     39   89   139   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   143     44   94   144   144     45   95   145   146     46   96   146   147     48   98   148   148     49   99   149   149   | $\vdash$ |       |  | H               | $\dashv$ | +                       | $\dashv$  | +                  | $\forall$   | $\dashv$ |  |          | $\dashv$             | +                       | 十            | Н               | 7        | $\dashv$ | +       | 1 |      | 131 | 一        | 十         | $\dashv$ |                | $\dashv$ | $\dashv$ | $\dashv$  | +   | $\dashv$ |
| 33   83   133   134     34   84   134   134     35   85   135   135     36   86   136   137     38   87   137   137     39   88   138   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   143     44   94   144   144     45   95   145   146     47   97   147   148     48   98   148   149   |          | 32    | <del>                                     </del> | $\vdash$        | 十        | +                       | $\dashv$  | T                  | Н           | $\dashv$ |  |          | 7                    | +                       | 十            | П               | +        | $\top$   | +       | 1 |      |     | $\dashv$ | 寸         | 一        |                | $\dashv$ | $\dashv$ | $\dashv$  | +   | $\dashv$ |
| 34   84   134   135     35   85   135   136     36   86   136   137     37   87   137   137     38   88   138   138     39   89   139   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   143     44   94   144   144     45   95   145   146     46   96   146   147     48   98   148   148     49   99   149   149   |          |       | $\vdash$   | П               | $\dashv$ | 十                       | $\top$  | $\top$             | П           |          |  |          | $\neg$               | $\top$                  | $\top$       | П               | $\dashv$ | 十        |         |   |      | 133 |          | $\exists$ | T        |                |          |          | 寸   | 丁   | ╗        |
| 35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   |          |       | П  | П               | T        | 十                       | 1   | 1                  | П           |          |  |          |                      |                         |              |                 |          | $\cdot$  |         |   |      | 134 |          |           |          |                |          |          | $\Box$  | I   |          |
| 37   887   137     38   88   138     39   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |          | 35    |  |                 |          | $\perp$                 | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |                    |             |          |  | 85       |                      | $\mathbb{T}$            | Γ            |                 |          |          |         |   |      | 135 |          |           |          |                |          | $\Box$   | $\Box$  | $oldsymbol{ol}}}}}}}}}}}}}}}$ |          |
| 38   88   138     39   90   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   |          |       |  |                 |          | $oldsymbol{\mathbb{T}}$ |   | $oxed{\mathbb{L}}$ |             |          |  |          |                      | $\perp$                 |              |                 |          |          |         |   |      |     |          |           |          |                | J        | 1        | $\Box$  | $\perp$   |          |
| 39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   |          |       |  |                 |          |                         |   |                    |             |          |  |          |                      |                         | $\Box$       | Ш               | $\Box$   |          |         |   |      | 137 |          | $\Box$    |          |                | $\Box$   | $\Box$   | $oldsymbol{\perp}$                                | $\perp$   |          |
| 40   .   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   |          |       | $\Box$   | Ц               |          | $\perp$                 | $\perp \!\!\! \perp$                              |                    | Ш           |          |  |          | $\perp \!\!\! \perp$ | 1                       | _            | $\sqcup$        | $\bot$   | $\bot$   | $\perp$ |   |      | 138 |          | $\bot$    | $\Box$   |                | $\Box$   | [        | $\perp$   | 4   | $\sqcup$ |
| 41   91   141   142     42   92   142   142     43   93   143   143     44   94   144   144     45   95   145   145     46   96   146   146     47   97   147   147     48   98   148   148     49   99   149   149   | <u> </u> |       | L  | $\sqcup$        | _ _      |                         |   | _                  | Ш           |          |  | 89       |                      | 4                       | $\perp$      | $\sqcup$        | _        |          | $\perp$ |   |      | 139 | $\Box$   |           | _        |                | _        | _        | _   | 4   | _        |
| 42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149   | <u> </u> |       | <u> </u>   |                 | _        | 4                       | _ _   | +                  | $\sqcup$    |          | <b> </b>   |          | _                    | 4                       | 4            | $\sqcup$        | _        |          | -       |   |      |     | $\sqcup$ | -         | _        | $\sqcup$       | _        | _        | $\dashv$  | +   | $\dashv$ |
| 43 93   44 94   45 95   46 96   47 97   48 98   49 99   |          |       | ⊢  | $\vdash \vdash$ | 4        | - -                     | _   | +-                 | +           |          | <b>  </b>  |          |                      | +                       | ╄            | $\vdash$        | _        | _        | +-      |   |      | 141 |          | $\dashv$  | _        | $\Box$         | 4        |          | $\dashv$  | +   | $\dashv$ |
| 44 94   45 95   46 96   47 97   48 98   49 99   | <u> </u> |       | $\vdash$   | $\vdash \vdash$ | +        | +                       | _   | +                  | +           | _        | $\vdash \vdash \downarrow$                       |          | $\dashv$             | 4                       | +-           | $\vdash$        | 4        | -        | +       |   |      |     | $\dashv$ | $\dashv$  | _        | -              |          |          | $\dashv$  | +   | 4        |
| 45 95   46 96   47 97   48 98   49 99   | <u> </u> |       | $\vdash$   | $\vdash \vdash$ | +        | +                       |   | +                  | +           |          | $\vdash$   |          | +                    | +                       | +            |                 | -        |          | +       | - |      |     | $\dashv$ | $\dashv$  | -        | $\vdash$       | $\dashv$ | -        | +   | +   | $\dashv$ |
| 46 96   47 97   48 98   49 99   | -        | 44    | ⊢  | $\vdash$        | +        | +                       | +   | +                  | +           | $\dashv$ | $\vdash$   | 94<br>0F | +                    | +                       | +            | $\vdash \vdash$ | $\dashv$ |          | +-      |   |      | 144 | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$       | $\dashv$ | $\dashv$ | $\dashv$  | +   | ᅴ        |
| 47 97   48 98   49 99   | -        |       | ⊢-   | $\vdash \vdash$ | +        | +                       | +   | +                  | +           | $\dashv$ |  | 90       | -                    | +                       | +            | $\vdash \vdash$ | $\dashv$ |          | +-      | 1 |      | 140 | $\dashv$ | $\dashv$  | -        | -              | $\dashv$ |          | +   | +   | $\dashv$ |
| 48 98   49 99   | $\vdash$ |       | -  | $\vdash \vdash$ | +        | +                       | +   | +                  | +           | $\dashv$ | <del>                                     </del> | 90       | +                    | +-                      | +-           | $\vdash$        | +        |          | +       | ╢ |      |     | $\dashv$ | +         | $\dashv$ | $\vdash$       | $\dashv$ | $\dashv$ | $\dashv$  | +   | $\dashv$ |
| 49 99 149 149   | $\vdash$ |       | 1  | $\vdash$        | +        | +                       | +   | +-                 | +           | $\dashv$ |  |          | $\dashv$             | +                       | +            | $\vdash$        | $\dashv$ |          | +-      |   |      |     | $\dashv$ | $\dashv$  | $\dashv$ | $\vdash$       | $\dashv$ | $\dashv$ | $\dashv$  | +   | ᅱ        |
|   |          |       | <del>                                     </del> | $\vdash \vdash$ | $\dashv$ | +                       |   | +-                 | +-          |          |  | 90       | +                    | +                       | +            | $\vdash$        | $\dashv$ | -        | +       | t |      |     | $\dashv$ | $\dashv$  | $\dashv$ | <del>   </del> | $\dashv$ | $\dashv$ | $\dashv$  | +   | $\dashv$ |
|   |          | 50    | $\vdash$   | ┝╌┤             |          | +                       | $\dashv$  | +-                 | +           |          |  | 100      | +                    | +                       | +            | +               | $\dashv$ | +        | +       | t |      | 150 | $\vdash$ | $\dashv$  | $\dashv$ | $\vdash$       | $\dashv$ | $\dashv$ | $\dashv$  | +   | ᅥ        |